

COST *and* MANAGEMENT

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COST ACCOUNTANTS & INDUSTRIAL ENGINEERS

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R. Dawson, Secretary-Manager
Telephone Baker 0700

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EDITORIAL

The Business Trend

Some alarm is being expressed over the general slump in business during the past month or two, and in many quarters fears are being expressed that the present slowing up of business will generate into a major depression. Opinions differ widely as to the cause of this slump, but to those who have studied the situation carefully, there appears to be no reason for real alarm.

It is generally understood, by those who profess to be "in the know," that the decline in security prices can be accounted for by causes not even remotely connected with the usual normal course of the business cycle.

There is, of course, the aftermath of the somewhat speculative boom caused by the effects of the various armament programs to consider, and again the fact that many industries, startled by rapidly rising prices, bought so far ahead that industry generally became far too busy for its own good.

Now the re-action. But, apart altogether from this point of view, there is the fact that in France and in the United States, social developments have been decided factors in contributing to the present slump—far more so than is generally realized—and here is the key to the solution of the problem. If France and the U. S. can lick their social problems, the slump should pass quickly. According to well posted observers, there is no sign of a cyclical decline, although there probably will be, in many industries, an interruption in the climb to prosperity during the present winter.

War Scares

War scares probably do play a part in business depressions, but, so far as can be seen from an impartial view of the situation, there is little likelihood of any major war in Europe for some time to come, if ever. In all cases, it takes two to make a fight, and, so far, Britain has very definitely refused to fight—probably until she is ready—and, by that time, probable opponents will also refuse.

Germany and Italy are playing a well-planned game of bluff, which may react against both countries in the not too distant future, and, while both these countries, through their Nazi and Fascist chiefs, are ever ready to cry to the high heavens about the necessity for colonies, or about the

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"insidious" communistic propaganda from the U. S. S. R., they nevertheless will "count the cost" before it comes to a real question of a major war.

This "counting the cost" is what will probably prevent such a catastrophe, and is undoubtedly a sign of the times. So it is in industry and governments. To "count the cost" is recognized as good business in every phase of life.

Tax Reductions

The rumour—and it is nothing more than a rumour, to the effect that the Dominion Government would show a reduction in the Sales Tax when the budget is brought down in April, has been welcomed by business generally, and although the man in the street hardly realizes what this would mean to him, it is safe to say that he, also, would welcome such a reduction.

Unfortunately, however, there is nothing to substantiate the rumour, although hope is expressed on all sides that it will turn out to be an actual fact. The Ontario Provincial Government, some time ago, announced a reduction in motor license fees, and Civic Governments generally are exploring every possible avenue in an effort to reduce municipal taxes.

Undoubtedly taxation, both on industry and in every way, is far too high, and everyone will await with pleasurable anticipation the report of the Rowell Commission now sitting in the West. Unfortunately, there is still relief recipients to take care of, but, if the overwhelming cost of government could be reduced, there would be some hope for the very much over-burdened taxpayers.

At Headquarters

Since the last issue, another now Chapter has been added, for the Kitchener Chapter has been formed, with the following appointed as provisional directors: E. S. Nicholson, Sheldon's Limited, Galt; C. R. Kidner, C.A., Savage Shoe Co., Ltd., Preston; D. C. Seebach, B. F. Goodrich Rubber Co., Ltd.; G. R. Good, The Kaufman Rubber Co., Ltd.; E. R. Tailby, C.P.A., and H. D. Huber, Canadain Blower & Forge Co., Ltd., all of Kitchener.

A second meeting was held at the Walper House Hotel, Kitchener, on November 18, when A. G. Howey, Mercury Mills Ltd., Hamilton, addressed the members on "Cost and Industrial Accounting." There was a good attendance, and the members gave Mr. Howey a good hearing and asked many intelligent questions at the close. D. C. Seebach occupied the chair.

Great things are expected from this new Chapter, and a real large attendance is expected at the next meeting, on December 16, when Mr.

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W. T. Brickenden, of Thorne, Mulholland, Howson and McPherson, Toronto, will speak on "Fuel for Thought."

One meeting has been held in St. Catharines, in connection with the proposed new Niagara Peninsula Chapter, and despite a most unsuitable night, due to inclement weather and other causes, there was a good attendance. Mr. A. G. Howey of The Mercury Mills Ltd., gave a delightful talk on "Cash and Balance Sheet Budgeting," and at the conclusion many questions were asked, showing the interest of those present in both the topic and the manner in which the address was delivered. Quite a number of those present expressed their intention of joining the Society, and another meeting is being arranged for January. It is confidently expected that, by that time, the formation of the Chapter will be complete. Only a severe snow-storm, which tied up the whole of the Niagara Peninsula the day following the first meeting has prevented quite a number of names of members in this area being listed in the December issue.

It is not an easy matter to form a new Chapter, but the task is made easier by those members who have so kindly assisted by addressing the prospective members of these two new Chapters. Niagara will be formed very quickly, but if there are any members who are willing to assist in compiling a real program for these new Chapters, their assistance will be very welcome. Perhaps they will be good enough on reading this to communicate with the Secretary-Manager.

Membership

The membership continues to grow, with Montreal Chapter doing a fine job. The rest of the Chapters are doing their share and, altogether, there seems to be new life and vitality in the Society generally. The list of new members elsewhere in this issue is not so large as could be wished, nor is it as large as was expected. It is difficult, however, at this time of the year to enlist the practical co-operation of many who are desirous of joining us. It can be said, however, in this connection that over one hundred prospective members have been personally contacted, apart from those who have already joined our Society. There are prospects who can be obtained, and who will be, if hard work and constant contacting means anything. In short, so far as membership is concerned, the outlook is very bright, indeed.

Forum Section

Two months ago, we inaugurated a Forum Section in these pages, which should mean a lot to our members. So far, it has resulted in much benefit to those who have taken advantage of these pages in an effort to solve their difficulties, but it can only continue so long as members with problems list them in this periodical, and, also, so long as those with a possible solution are good enough to write and assist in solving these problems. Your co-operation in this connection will be appreciated.

At this stage, may we express our sincere appreciation of the co-opera-

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tion shown by the members so far, in connection with our attempts to boost the Society, both in membership and in prestige. We recognize the true bond of friendship which exists among our members, and we thoroughly appreciate it, more than we can say. May we, personally, extend to every members of the Society our best wishes for a very Happy Christmas and a Prosperous New Year.

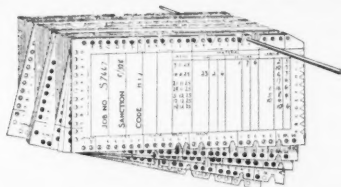
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Food Cost Accounting

Address delivered to the Montreal Chapter at Lecture Meeting

Held on December 10th, 1937

By

J. R. HENDRY, C.A.,
Montreal

The evolution of the modern manufacturing plant with a capacity many times greater than its predecessor of, say, thirty years ago has brought with it a very definite change in management methods. The owner-manager of earlier days knew each man, each tool and each machine process in his organization and, probably, having every movement under close personal supervision, his accounting system to meet his needs was simple. Under the urge of competition the modern plant not only produces more goods but produces them in a great variety of quality, size and pack, and in doing so uses more complex processes with less spoilage and waste, more efficient and less costly manual fabrication methods, and finally seeks to place its product in the hands of the consumer with the minimum of selling and distribution cost. To do these its cost and accounting systems have of necessity become more complicated, more adequate and (it is to be hoped) more accurate.

Rising costs and increased competition have made it exceedingly difficult to manufacture and sell the product of industry at a profit. Increasing cost of raw materials has prompted the avoidance of waste and more economical methods of operation. Competition has brought more intensive sales methods, and the limits which it has also placed on selling prices have given definite impetus to more economical manufacturing and selling methods.

The result of these influences has been a demand for more accurate and detailed information of the cost of manufacturing and selling the various products.

While this development has been taking place in manufacturing plants, a similar evolution has taken place in hotels and restaurants. The hotel and restaurant of to-day have entered the realm of "Big Business." Not only has the size of individual establishments been greatly increased, but many are linked up in chain organizations operating in many locations. The increased size of industrial plants and their concentration in economically strategic locations have created a greatly increased clientele for restaurant and hotel. Lunch rooms and soda fountains have sprung up in large numbers to share in the rich harvest, and competition has become exceedingly keen. Many of the factors which have forced the management of industrial enterprises to seek more detailed accounting information as to the costs of production have been present with equal force in the operation of hotels and restaurants and have likewise made the restaurateur

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realize that only through a detailed and complete knowledge of the costs in his own business can he meet competition successfully.

Purpose of Cost System.

In the industrial field such detailed information is secured by a cost accounting system which gives particulars of the various elements of cost for each job or product manufactured, the cost of operating each manufacturing department, the sources of profit or loss and the results of the operation of the entire plant. It also permits the analysis and comparison of costs as between one period and another, as well as between the costs of similar products manufactured by different processes. In the hotel and restaurant field similar information is secured through the installation and operation of a food cost accounting system or "Food Control," as it is sometimes called.

The purpose of food cost accounting or food control is to assist the management in keeping the cost of food consumed at the lowest possible point consistent with the policy of the management as to quality and size of portions. While a food control system may bring out the fact that portions are too large it is not the aim of the system to reduce portions. Nor is it the purpose to reduce costs by lowering quality—no food control system is needed to do this. The moral effect of the installation of the system often results in a lowering of costs through the elimination of waste, but the system cannot of itself effect any change. The system should produce detailed records of daily costs and comparisons of costs between periods which will enable the management intelligently to control purchases and stores, establish prices and determine policies. Food control is not a panacea for all the ills of the hotel and restaurant business, but accurate records of food costs, prepared daily and interpreted correctly by an efficient executive will form a basis for intelligent and successful operation.

The late Robert Dollar, head of the steamship line bearing his name, is reported to have said that he ascribed his business success largely to his ability to read and understand figures, but he added, "I first make sure that figures submitted to me upon the strength of which I base my judgments are correct." In no department of an enterprise is the need for correct records greater than in the cost department. Food cost records must be proved, and this is done by controlling the cost accounting records through the general books of account. The cost statements show the same results as the general operating statements—only with much greater detail and with a different grouping of the items.

In order to secure adequate food control, the following information must be available—

1. Distribution of daily food costs.
2. Distribution of daily food sales.

From these records a "Daily Summary of Commissary Operations" is compiled showing cost and sales for the day, distributed by commodities and departments, together with accumulated totals for the period to date. In addition, such useful information as number of covers served, percentages of cost to sales by commodities and by departments, comparisons with the

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same day of the previous week and with the same period of the previous year, is included. From this record the executive officers can see the various changes which have taken place and are, therefore, in a position to take steps to correct weaknesses when required, without the necessity of lengthy preliminary investigations.

Accounting for Materials.

Before accurate daily food costs can be obtained all merchandise must be under strict control and issued to the various departments on proper authority only. Materials are worth the money spent for them and must be guarded and accounted for with as much care as the money that was spent in acquiring them. Materials which are not controlled are at the mercy of the careless or dishonest employee to be used or misused according to the whim of the moment.

A clean, well ventilated store room filled with adequate shelf space and storage bins, is essential for economical storing and handling of merchandise. Deterioration can be as costly as pilfering. Goods should be arranged in the store room systematically, easily accessible and according to a well devised plan, so that any commodity can be located with a minimum of effort. The store should be in charge of a storekeeper or steward, who is responsible for the receipt and issue of all stores and accountable for any shortage.

Merchandise in the store should be controlled by a Perpetual Inventory Record, (Form No. 1), consisting either of a card system or a stock ledger. A card or sheet must be made out for each commodity handled and, in the case of canned or packaged goods, separate cards are made out for each size purchased. These are printed with space at the top for a full description of the goods, including size or quantity in each container so that items can be readily identified. In addition, space should be provided for recording the maximum and minimum amount of stock to be carried at any time. The body of the card should be divided into three sections, "Received," "Issued" and "Balance" and sufficient columns printed in each section to record date, invoice number, quantity, unit price and total value.

Food control must start in the purchasing department and the same care exercised in placing orders as will be exercised later in using the goods. All purchases should be made by the executive in charge of the purchasing department, and orders should be issued for all purchases made. Purchase orders should be made out on specially printed and consecutively numbered forms and completed with a full description of the goods required and showing quantity and unit price. All orders should be signed by the official authorized to make purchases. Orders should be prepared in triplicate, one copy sent to the supplier, one copy retained by the purchasing department for reference and one copy sent to the storekeeper. The store clerk checks the goods when received against his copy of the purchase order and the supplier's invoice and enters the date, purchase order number, quantity received, unit price and invoice value in the "Received" section of the perpetual inventory records for the particular goods received.

While the ideal arrangement is to receive all goods at the storeroom

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and to issue them on requisition as required this is seldom possible in practice except in a few large establishments. It is usually the case that perishable goods are purchased in quantities sufficient only for the day's requirements and delivered direct to the kitchen for lack of refrigerator storage space to handle large quantities. In this case the receiving clerk checks the goods when delivered and enters the quantity, unit price, description and invoice value on a "Summary of Direct Food Purchases Report" which at the end of the day is totalled and forwarded to the food cost accountant.

All invoices, when checked by the storekeeper, are stamped to show that quantities, quality and prices, are correct and then forwarded to the accounting department with related purchase orders attached where they are entered in the purchase journal and distributed to "Direct Food Purchases" or "Stores Food Purchases" and form the basis of the monthly debits in the general ledger.

When goods are required from stores the department head completes a "Stores Requisition Form" in duplicate with the quantity and description of the goods required and sends it to the storekeeper who inserts the unit prices, which he finds in the perpetual inventory records, and extends the total cost of each item on the requisition. After delivering the goods called for he enters the date, requisition number, quantity, unit price and total value in the "Issued" section of the perpetual inventory records and brings forward the quantity and value of the goods remaining in stock in the "Balance" section. At the end of the day the requisitions are totalled, summarized by departments and, after having been entered on a "Summary of Stores Issued Form" are forwarded together with a copy of the summary to the food cost accountant. From the "Summary of Stores Issued" and the "Summary of Direct Food Purchases," already referred to, the cost accountant prepares the "Distribution Sheet for Daily Food Cost," Form No. 2, by analyzing the direct purchases and the issues from stores into suitable control groups by departments in which the goods were used.

Since goods are sometimes transferred from one department to another it is necessary to have inter-departmental requisitions to record these transfers. These transfers do not affect the total cost of food, but only the division of the total cost between departments so that no record is needed in the general ledger accounts. Effect is given in the "Distribution Sheet for Daily Food Cost" for inter-departmental transfers by deducting the amount transferred from the receipts of the department from which the transfer is made and adding it to the receipts of the department which receives the goods.

Control of the merchandise in the store is secured by making a physical count of the quantities on hand and checking with the balances which ought to be on hand according to the perpetual inventory records. Any differences should be traced and when satisfactorily accounted for, adjusting entries made on the inventory cards in which the differences were found. The total value of the goods in the store should be compiled by totalling the values shown in the "Balance" section of the perpetual inventory records. This amount should agree with the balance in the "Stores Food Control" account in the general ledger which has been debited with

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the cost of all goods purchased and put into store and credited with the total stores issued at cost. Any wide variation should be investigated and the necessary adjusting entries made in the general ledger accounts to bring them into agreement.

In compiling the "Distribution Sheet for Daily Food Cost" no account is taken of the inventories in the kitchens, pantries or other departments. Experience has shown that these inventories vary little from day to day and, since the amount of work involved in taking inventories daily is out of proportion to the benefits to be derived, inventories are ignored in making up the daily figures and to the extent that these fluctuate from day to day the daily food cost is inaccurate. All department inventories should be taken monthly and the monthly statements adjusted to take into account the net change in the inventories during the month.

Accounting for Revenue.

As control of income is just as important as control of materials, every item of food issued from the kitchen and pantries should find its way into revenue either as cash or as a charge to accounts receivable, where part of the business is on a credit basis, or as a charge to employees' meals. Some people take a special delight in cheating restaurants, and many methods are tried by unscrupulous patrons and dishonest waiters. One is to give a small order and, after receiving a check for it, order a full course dinner and ask to have it all put on one check because the first check is lost. When leaving, only the small check is paid. Another is to have the waiter undercharge and to give back part of the saving in a liberal tip. Several people eat together and get separate checks, and when leaving pay only one check with the explanation that "they are all on the one check." With proper supervision such practices can be detected and stopped. Waiters should report to the supervisor or cashier when a patron claims to have lost a check, giving the number of the new check issued. Undercharging can be controlled through the operation of a food checking system, while, where more than one person is served and it is the practice to make only one check, the number served should be shown on the check.

As already stated, all food issued must be accounted for and a checking system is necessary to accomplish this. There are many systems in use, some of which are more effective than others, but there is no one system that is best in every case. Conditions vary greatly in different establishments and only after a careful study of all the conditions existing in a particular restaurant can the most effective system be determined.

No matter what checking system may be used, the first prerequisite to control is the numbering and control of the restaurant checks. Where checks are bound in books each book should be examined to see that the correct number of checks is included and that no duplication of numbers has taken place in printing. As checks are issued to the waiters a record of the numbers is made on sheets kept for the purpose and the waiter signs for the checks he receives. Where checks are not bound but are handed out to the waiter individually as required, check numbers are entered consecutively on a record sheet which the waiter signs against the number of the check which he takes.

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The simplest system, which aims at control, is to have the waiter write out his own check in detail, including the price, and give it to the customer who pays the cashier on leaving. The cashier then rings up the amount received on the cash register and at the end of the day the total checks should agree with the total receipts as shown by the register. While this system provides a certain amount of control over the waiters and the cashier and makes it possible to fix the responsibility for certain shortages, it has the very serious disadvantage of providing no means of checking food issues from kitchen and pantries to sales.

Checking systems can be classified into three groups according to the method of control: 1. checker's sheets; 2. duplicate checks, and 3, register machines.

The checker's sheet system consists in having a sheet with columns for each waiter and a set of rubber stamps with prices in duplicate. The waiter fills his tray in the kitchen and pantry, writes up his check but does not include prices and, when leaving the kitchen, takes his tray and check to the checker who checks the items on the tray and, after placing the check alongside that waiter's column on his sheet, stamps the prices on the check and the sheet with the duplicate stamp.

In the duplicate check system no checker is employed. The waiter puts a duplicate slip under the check and writes out the order, inserting the prices. He then leaves the duplicate in the kitchen as a receipt for the food received. Since all the dishes are not received at the same place the waiter has to make a duplicate for each department from which he gets food. As soon as he has listed all the items on the check that he gets from one department he takes out the duplicate and inserts another and continues to list the items he will receive at the next department and so on, making a list for each department. Thus he leaves a record in each department of what he receives.

This system sounds well in theory but works well in practice only in the smaller restaurants where the chef has plenty of time to watch everything that leaves the kitchen and pantries. Since the duty of the chef is to prepare good food at a reasonable cost and serve it attractively, the work of routine checking should not be imposed on him. Where volume justifies the expense, it is more profitable to employ a food checker whose time is less costly than that of a high priced chef.

The register machine does not provide for a record of the sales of each waiter except as is provided by the waiters' checks. The method is the same as when checker's sheets are used, but, instead of stamping the prices on both the check and the sheet, the checks are inserted in a register machine which stamps the price on the check and on the tape and automatically accumulates the totals.

Regardless of the checking system used the cashier should keep a record of the checks turned in by summarizing the sales of each waiter on a columnar sales sheet. All checks must be accounted for and any missing numbers checked to the waiter to whom they were issued. The total sales as shown by the sales summary should agree with the total food charged

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out from the kitchen and pantries as recorded on the checker's sheet, summary of duplicate slips or register machine according to the system in use.

In cost accounting for industrial concerns costs are applied to the units produced on the basis of the amount of material and labour entering into their production with an estimated amount added to cover overhead expense. In restaurant and hotel costing such a system is impractical if not wholly impossible. Labour cost and overhead expense are not taken into account in the "Distribution Sheet for Daily Food Cost," which deals only with the cost of materials. Labour and overhead expenses are analyzed by departments, and comparisons made between departments and periods and adequate control secured. The cost of material entering into individual sales units is not calculated because of the difficulty of breaking down the unit into its component parts and distributing the cost of the materials used over the parts. For example, an order of lamb chops would be divided into "Lamb," "Potatoes," and "Vegetables," and the cost of each item used in the preparation of the dish determined, which would result in constant weighing, measuring and recording in the kitchen. It is obvious that such a cost system would be impossible to operate.

It is not the aim of food cost accounting to find out the cost of individual dishes but to find out how much is received from the sale of certain units and groups of units, of which the cost is already known, and to determine what profit has been earned in the various groups.

Sales are analyzed from the itemized restaurant checks. Each item appearing on the check is recorded on the "Distribution Sheet for Daily Food Sales," Form No. 3, under the item and in the group to which it applies. After all the checks have been analyzed and the number of portions entered in the portions column the total selling price is calculated by multiplying the number of portions by the unit selling price, and entered in the amount column. Combination dishes are entered in the group of the main ingredient; waffles and bacon, for example are classified as waffles. The total sales of waffles and bacon are then determined and the excess of the sales price over the same number of orders of waffles is inserted in red in the "Transfer" column in the pastry department section and an entry for the same amount is made in black in the same column in the miscellaneous provisions section under bacon. In the case of such items as patties an estimated amount is applied as the selling value of the pastry shell and a transfer made to the pastry department to cover the estimated revenue from the sale of pastry shells, the corresponding entry being made in red against the item in which the sale of patties appears. After all transfers have been made the "Net Sales" column is completed, totalled by groups and summarized. This total should agree with the total shown on the sales summary prepared by the cashier from the restaurant checks.

The net sales are now transferred to the "Daily Summary of Commissary Operations," Form No. 4, to which has been transferred the cost from the "Distribution Sheet for Daily Food Cost," thus completing the cost and sales for the "Day" column. The total cost and sales are then calculated and entered in the section headed "To Date."

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Special Methods for Hospitals.

Hospitals lack the profit stimulus which has been present in industrial enterprises, with the result that detailed accounting and costing methods have not been developed to the same extent. The notion of tying up the revenue from services rendered with the cost of these services, an idea fundamental in the management of business, has not penetrated very far in the hospital field. More than twenty years ago Joseph E. Stone, writing of his findings in an investigation of hospital accounts and financial control in some British hospitals, said, "In the same way that hospitals are being asked to account for revenues, they are also being required to account for expenditures made. However, merely accounting for expenditure is not sufficient; the economy of issuance and use may be much greater than the economy of purchase and this requires control of stores through proper orders for goods issued. Departmental distribution of these stores compiled from requisitions enables the executives to isolate abnormal use of supplies and aids in comparisons between one department and another, and is altogether more useful than the tabulation of the original purchases. . . . It can then be determined what departments are operated at a profit or at a loss. . . . The fact that departments are not paid for their work is not necessarily their fault . . . they may be doing service at very reasonable cost but through economic conditions the percentage of indigent patients may be great with the result that the actual revenues collected may bear no relation to total services rendered."

The same observations can be applied to Canada to-day. The years of depression through which we have passed have put a heavy strain on hospital finances. Not only has income from investments and endowments undergone considerable shrinkage, but ordinary revenue from paying patients has also declined through inability of a large number of people to meet the full cost of hospitalization. At the same time, many of the expenses of a hospital are fixed and cannot be reduced to meet declining revenue, while others tend to mount through the increasing number of indigents seeking medical care in clinics and outdoor patient departments.

Much of the criticism of hospital costs could be avoided if hospitals were prepared to substantiate the results of their work by showing by means of percentages, costs and other figures that charges for services had been too low in certain cases, government grants and allowances insufficient to cover the cost of free patients and that donations received from public spirited citizens were economically and wisely applied. From such information the public would fully realize the tremendous burden hospitals are bearing as a result of economic conditions which place a considerable number of people in a position where they are unable to afford vitally necessary treatment.

The same methods as have been outlined for the control of purchases, issues and inventories in restaurants and hotels are used in hospitals, but the basis of food costing differs because of the essential difference between selling meals to the general public and feeding hospital patients.

Since hospital charges cover complete hospitalization of patients no good purpose is to be served by allotting a portion of the total charge to

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feeding and then applying the cost of food to the estimated revenue from food to find out whether a profit has been made or a loss incurred. The most valuable measure of the efficiency of commissary operations in hospitals is the food cost per patient day, and this should be computed daily for private, semi-private and public ward patients, staff, doctors and help and further subdivided to show cost by wards. The food cost per patient day is the cost of the food used to feed a patient or member of the staff for twenty-four hours.

It is the usual practice in hospitals to consider the day as starting at midnight and to charge every patient in the hospital for a full day if admitted any time within the following twenty-four hours. After midnight a report is made to the office by the nurse in charge of each ward, giving full details of the number of patients in the ward, and this is used as the basis of making charges to patients' accounts. When this report is made a "Diet Slip" should also be completed with details of the meals required for the next twenty-four hours. These diet slips are sent to the dietitian in charge of the kitchen and serve as the basis for the issue of stores and the preparation of meals.

Public ward patients have no choice of diets but are supplied with a standard diet according to the requirements of particular cases and as ordered by the doctor. Each diet is given a number and the nurse in charge inserts the number of patients in her ward who are to receive the different diets and, after noting any extras which may have been ordered, sends the diet slip to the kitchen. In the case of private and semi-private patients where there is a choice of meals the menu for the following day is sent to each patient in the afternoon and after having been marked with the meals chosen is returned to the ward nurse who makes up a summary of the meals required for the ward and sends it to the kitchen.

Diet slips are then analyzed into ingredients and summarized and a stores' requisition prepared for the total stores required for the day. After the storekeeper issues the stores he enters the unit prices on the requisition, extends the cost of each item and posts the details in the "Issued" section of the perpetual inventory cards. The ward summaries are then priced, the cost of each ingredient is extended and the total cost computed. The total food cost for the day is then entered on the cust summary together with the total number of patients and extended in columns to show food cost and number of patients for each ward, food cost and number of patients in private wards, in semi-private wards, in public wards, and the same information for doctors, nurses and help. The total number of patients fed as shown by the summary should agree with the number of patients reported to the accounting office and any difference should be traced to the ward reports. Totals are carried forward daily on the summary, thus giving the accumulated totals for the period to date as well as the daily figures.

A careful analysis of patient day costs and comparisons between wards and periods will result in intelligent control of kitchen operations and elimination of waste through fuller knowledge of detailed ward food costs.

Depreciation.

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"Depreciation is no more than a periodic amortization of the cost of an asset over the period of the useful life of such asset to the organization which owns it." From the day equipment is purchased it begins to depreciate and its value continually diminishes, with greater or lesser rapidity, according to its nature and use, until it reaches a point where it has no further useful value to its owners, except perhaps as scrap. As Montgomery puts it in "Auditing Theory and Practice," "Depreciation is due to the possession and use of the assets; it is certain to occur and therefore it is a part of the cost of operation."

In determining the amount to be charged the question should be considered only in connection with the initial cost of the item to be depreciated. The fact that the replacement value of the asset has increased or decreased since the time of its purchase has no bearing on the amount to be provided. The initial cost less the probable scrap value at the end of its useful life is the amount that must be charged to operations during the period of its usefulness. In estimating possible useful life the question of obsolescence must be considered as well as ordinary wear and tear. The risk of obsolescence is very great under modern competitive conditions and rapidly changing methods, and unless ample provision is made for keeping equipment up-to-date earning capacity may be severely diminished. Since it is impractical to establish individual rates to cover each item of equipment, similar classes should be grouped and estimates made to cover the whole group.

The problem which confronts the accountant is how to apply this loss in value equitably to the various periods during which the asset value is being used up. While there are many methods of determining the amount to be charged for depreciation, it is not the purpose of this paper to deal extensively with all the methods now in use. Any good text book dealing with the subject may be consulted for a more detailed study.

For the purpose of providing depreciation, kitchen and dining room equipment is divided into two groups; in the first, ranges, ice boxes, mechanical devices, machinery, pots, pans, coffee urns, etc., and in the second: linen, glassware, china and silverware.

The simplest and most commonly used method of providing depreciation for group one is the straight line method. Under this system the total amount to be depreciated is divided equally over the years of usefulness of the asset and an equal amount charged to operations each year. This method is probably as accurate and satisfactory as any when applied to this kind of equipment. Another method uses a fixed percentage but applies this annually on the net value of the asset after deducting all depreciation already written off. Under this system a large amount is provided in the first year and successively smaller amounts in succeeding years. The argument in support of this method is that the cost of repairs and maintenance is lighter in earlier years but heavier in later years.

No expected life is determined for linen, glassware, china and silverware. Instead, an inventory is taken at the beginning of the period and the cost of all equipment purchased during the period added. At the end of the period the equipment is reinventoried and the difference between

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the opening inventory plus purchases and the closing inventory is written off to the operations of the period. Because of the saving in purchasing in large quantities many restaurants and hotels purchase large supplies of linen, glassware, etc., which will only be used up over a considerable period of time. Where this is the case, instead of charging all equipment as purchased in one account it is much better practice to have two accounts on the books, one for equipment in use, and the other to record new equipment in store. All equipment as purchased should be put into store and issues made as required. The cost of equipment as purchased is charged to "Equipment in Store" account and as issues are made the cost of the issued equipment will be credited to the "in Store" account and debited to "Equipment in Use" account. The inventory of the equipment in store at cost should agree with the balance of the "Equipment in Store" account at all times.

While equipment in store should be valued for inventory purposes at cost, due account of depreciation must be taken in pricing the inventory of equipment in use. Since the stock of china and glassware in use is being continually renewed to replace breakages, it does not depreciate to any great extent and it is usually sufficiently conservative if china and glassware is reduced to about seventy-five per cent. of cost over a period of about five years. Linen and silverware, however, are not being renewed to the same extent and it is usually necessary to write down their value to about fifty per cent. of cost over a period of three years. These estimates, given by J. O. Dahl in "Restaurant Management" and based upon experience in averages cases, are given as indications of what others have found and should not be followed blindly. The amount of linen in comparison to the number of covers served daily, the class of dining room and the laundry policy all have a bearing on the amount of depreciation which takes place in a given period and an examination of the condition of the articles is the best guide to their value.

It is not practical to take inventories of linen, glassware, china and silverware monthly and provision is made for depreciation in the monthly operating figures by setting up a reserve either on the basis of a percentage of the sales of the month or by charging a fixed amount for each meal served. The former method appears to be more generally used and since the volume of sales should bear some relation to the number of dishes and pieces of silverware used it is probably more nearly accurate. At the end of the year the amount by which the opening inventory plus additions during the year exceeds the closing inventory, is transferred against the accumulated reserve and any difference adjusted through profit and loss account. Linen, glassware, china and silverware is shown on the balance sheet at the end of the financial year at the net figure as determined by the physical inventory.

According to some authorities depreciation may be as low as $1\frac{1}{2}\%$ in cafeterias and restaurants using little linen and as high as 6% in high class restaurants and hotel dining rooms. For a first class restaurant not connected with a hotel $3\frac{1}{2}\%$ of sales, divided $1\frac{1}{2}\%$ china and glassware, $1\frac{1}{2}\%$ linen and $\frac{1}{2}\%$ silverware, is usually adequate. However, where

FOOD COST ACCOUNTING

there is insufficient information available to determine the percentage required inventories should be taken every two or three months and the reserve checked with the actual figures.

Useful Life of Equipment.

Schedule in common use by a large number of hotels, as given by J. O. Dahl in "Restaurant Management:"

Ranges	15 years.
Ice Boxes	25 years.
Bake Shop Equipment	30 years.
Bake Ovens, Brick	40 years.
Stock Pots, Aluminum	30 years.
Stock Pots, Copper	25 years.
Coffee Urns	20 years.
Dish Washing Machines	10 years.
Dish Conveyors	31 years.
Bread Slicing Machines	10 years.
Electric Toasters	7 years.
Egg Boilers	10 years.

Miscellaneous kitchen equipment including pans, metal kitchen sinks, meat choppers, etc. average 30 years.

Composite life to cover all the above equipment 15 years.

Books of Reference.

Cost Accounting—W. B. Lawrence.

Hospital Accounts and Financial Control—Joseph E. Stone.

Restaurant Management—J. O. Dahl.

Practical Auditing—Spicer & Pegler.

Auditing Theory and Practice—Montgomery.

Accountants' Handbook—Section 27, Second Edition.

Hospital Accounting—Departmental Analysis. K. E. Greenwood, C.A.,
The Canadian Chartered Accountant.

The Problems of Hospital Management—A. E. Sawyer.

A Uniform Accounting System for General Hospitals—Commonwealth
of Pennsylvania, Department of Welfare.

Institutional Food Conservation—United States Food Administration.

Sound Accounting Systems Essential for Restaurants—A. S. Tindale,
C.A., Canadian Hotel Management & Restaurant News.

New Members

Montreal Chapter.

- W. G. Hagan, Can. Spool Cotton Co., Montreal.
D. G. Shutt, The B. V. D. Co., Ltd.
F. R. Robertson, Montreal Daily Star Pub. Co. Ltd., Montreal.
F. W. Naylor, Can. Tube & Steel Products Ltd., Montreal.
G. E. Johns, Can. Int. Paper Co., Temiskaming, P.Q.

Toronto Chapter.

- D. M. Andrews, F.C.I.S., Dom, Mfg. Co. Ltd., Toronto.
W. W. Scott, National Cash Register Co., Toronto.

Hamilton Chapter.

- W. Baillie, American Can Co. Ltd., Hamilton.
W. L. McMahon, Hamilton Cotton Co. Ltd., Hamilton.
N. Worden, Can. Durex Abrasives Ltd., Brantford.
A. Alexander, Canada Carriage & Body Co. Ltd., Brantford.

Kitchener Chapter.

- G. R. Good, Kaufman Rubber Co. Ltd., Kitchener.
I. K. Weber, Kaufman Rubber Co. Ltd., Kitchener.
V. M. Buchanan, W. E. Woelfle Shoe Co. Ltd., Kitchener.
R. Odendahl, Stauffer, Dobie & Co. Ltd., Galt.
E. R. Scott, Babcock-Wilcox, Goldie & McCullough, Galt.

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FORUM SECTION

Budgeting.

To The Editor,

Dear Sir,—

Regarding your enquiry in the November issue of "Cost and Management" from Company "E," requesting information on the instalment of a complete Budgetary System, may I say that I believe our company has the information desired. This whole question, however, is so comprehensive and a detailed explanation would take up so much space that we do not think it advisable to list all the information desired in your magazine. Detailed explanations can accomplish much good, but we believe that it would be far better to actually show the whole detail to the enquirer rather than run the risk of not actually getting across our system. If the enquirer would like to get in touch with the writer, through your good offices, I feel very certain that we have information which would be of undoubted benefit to him. Perhaps he may be far removed from our office, but even in that case we feel that a trip to our office, when we would show him exactly what we do and how we do it, would more than offset the expense involved and would, in our opinion, give him a comprehensive idea of how to instal a complete Budgetary Control System. If the enquirer will do this, we will gladly place our time and our experience at his disposal.

Yours Truly.

—COMPANY "F."

Drawing Numbers.

To The Editor,

Dear Sir,—

For many years we have had a system of numbering drawings, but, due to the many and varied products which we manufacture, together with the vast number of items which go to make up our varied products, and the increasing number of parts manufactured as replacement parts on obsolete models, we find that the numbering system as at present employed is more or less out of hand. If any member has any information on this subject we shall be glad to hear of it. What we require is a system which will show the drawing number and also the model the part has relation to, without going into "box car" figures. Perhaps you will be good enough to include this letter in your "Forum Section" in the next issue of "Cost and Management." Thanking you in anticipation,

Very Truly Yours,

—COMPANY "G."

If any reader has any information on the above subject, kindly notify the Editor as soon as possible.—Ed.

Chapter Notes

Mr. A. S. Keiller of the Sherwin Williams Co., Ltd., was the speaker at our November 26th meeting, and the members thoroughly enjoyed his talk on "Costs in the Paint Industry." By giving the consumer a colorful, clean and restful environment, by providing work for its employees and those of allied industries, by operating a continuous source of profitable business for retailers and by paying Dominion, provincial and municipal taxes, the paint and varnish industry contributed greatly to the general welfare, said Mr. Keiller.

In outlining in detail a cost system for the paint and varnish industry, he presented its various bases and gave examples of its application. Mr. Keiller dealt with factory charges, need for consolidated record of service, expense and output accounts, and the distribution of operating expense items.

Mr. E. J. Loiselle was chairman, and a hearty vote of thanks was accorded the speaker at the close of the question period.

Toronto.

Fifty-two members of the Toronto Chapter journeyed to Hamilton on November 24 for a joint meeting with the Hamilton Chapter. Mr. C. S. Walters, Controller of Finances for the Ontario Government, was to have been the speaker, but at the last moment found himself unable to be present, and so Mr. Lloyd Angstadt of Buffalo, and who is Program Director for the Buffalo Chapter, N.A.C.A., deputized.

Let it be said here that the talk by Mr. Angstadt, on "The Responsibility of the Accountant," was thoroughly enjoyed by everyone present. He proved himself an excellent speaker, with a very entertaining manner, and is sure to be given a most hearty welcome on future visits. Exactly one hundred sat down to dinner, and the attendance at the meeting was well over that mark. The Toronto members enjoyed very much the hospitality of the Hamilton Chapter, and are looking forward with pleasure to the visit of the Hamilton members to Toronto on January 25, when Mr. Paul Kellogg of Montreal will speak on "The Mathematics of Management."

On December 14 the best meeting in recent years took place at the Canadian Military Institute, when Mr. J. H. Cook, Chief Engineer of the Charles E. Bedeaux Co. of New York, spoke on "Standard Costs from the Engineer's Viewpoint." Close to one hundred were present at the dinner and well over the century mark for the meeting. Mr. Cook exploded the theory of standard costs as generally constituted, and looked upon such costs as being merely average costs based on the experience of several years.

He outlined a system for job analysis, which he considered eminently fair to the operator, and which gave extra points for such things as experience, dexterity, abnormal positions, monotony, hazard and many other such points. It is impossible to produce here all the points Mr. Cook

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explained, but it is safe to say that at no meeting in recent years have so many questions been fired at a speaker. The question period lasted for well over one hour and did not cease until the members had just about exhausted themselves.

Hamilton.

Reference has already been made in the Toronto Chapter notes to the joint meeting held in Hamilton on November 24, and no repetition is necessary, but it was a grand meeting. On December 8, however, the Hamilton Chapter held another fine meeting, when Mr. E. M. Detwiler of the Worthington Pump Co., Ltd., Buffalo, spoke on "The Presentation of Cost Information to Foremen." Fifty members were present and gave the speaker their rapt attention to a most interest subject. The text of Mr. Detwiler's remarks is published elsewhere in this issue, but suffice to say that no speaker has been enjoyed more by the members, and the number of questions fired at him following the talk testified to the interest in the talk. Some of the questioners even followed Mr. Detwiler to his hotel room and continued the questioning there. He has promised to come again to Hamilton at some future date, and he can be assured of a very warm welcome.

Kitchener.

On November 18 the second meeting of the new Kitchener Chapter was held, at the Walper House Hotel, when about twenty-eight members gathered to hear Mr. A. G. Howey, of Hamilton, speak on "Cost and Industrial Accounting." Mr. Howey was very well received and answered numerous questions at the conclusion of his talk. Mr. D. C. Seebach occupied the chair, and at this meeting the following were appointed as provisional directors, who will carry on until the annual meeting in March: D. C. Seebach, C. R. Kidner, E. S. Nicholson, E. R. Tailby, G. R. Good, and H. D. Huber.

The next meeting of the Kitchener Chapter will be held on December 16, when Mr. W. T. Brickenden of Toronto will speak on "Fuel for Thought," and it is hoped that the members will respond with a good attendance.

Niagara Peninsula.

Prospective members of the proposed new Niagara Peninsula Chapter held a meeting at the Welland House, St. Catharines, on December 8, when the speaker was Mr. A. G. Howey, Mercury Mills Ltd., Hamilton, who spoke on "Cash and Balance Sheet Budgeting." About thirty were present and listened attentively to a very interesting talk. Many questions were asked at the conclusion of the talk, which appears in print elsewhere in this issue.

Further meetings are being arranged, with the next scheduled for late in January, and it is hoped that by that time the organization of this proposed new Chapter will be completed. Certainly, at this stage matters look very promising. Mr. F. H. Fritz of the Hamilton Chapter occupied the chair at this meeting.

The Presentation of Cost Information to Foremen

An Address Delivered by

E. M. DETWILER

Worthington Pump & Machinery Corp.,
Buffalo, N. Y.

Before Hamilton Chapter, December 8th, 1937

My talk is designed to present a case study of how one industrial organization holds a check rein on operating costs by providing its key men with concise information at short, regular intervals.

The methods to be outlined are those which have been found well suited to our particular requirements. No claim is made that they are "Utopian" or that they are adaptable to all plants. We know that they are good for our organization, and believe that they may be at least of interest to others.

Why present cost details to the foreman? Because he is one of the most important cogs in the industrial machine of to-day!

His every act is ultimately converted into a red or black figure on the profit and loss statement! It is his function to see that jobs are put through the process of manufacture:

1. Governed by specific quality standards,
2. At a predetermined, or standard, cost,
3. Within a given time, or production, schedule.

This doesn't sound like a great deal when expressed in so few words, does it? However, when we consider that foreman Bill Smith, in addition to utilizing his technical knowledge of the work, must deal with many human types, such as Mike Murphy, Joe Kowalski, Gus Schultz, Tony Sardella, and perhaps a Greek or two, (with a Detwiler thrown in to boot,) we are going to unanimously agree that he doesn't have much time to waste trying to reason out abstract rows of figures!

You industrial engineers fully appreciate the necessity of providing Bill with snappy cost reports that he can digest in a hurry, while he is at the same time occupied in solving his thousand-and-one shop problems each day.

How many times have you had occasion to discuss a problem involving complicated manufacturing process with a busy machine shop foreman in his own bailiwick? You probably received his undivided attention for five minutes out of twenty, the other fifteen he was dancing around on one leg or the other, answering questions of detail from his chief layout man or some mechanic, and at the same time wondering when in blazes you were going to beat it.

Our foreman asks us to do very little for him insofar as cost reports are concerned. All he wants to know is the **What? How? and Why?** of cost.

1. What should operations cost?

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2. How much do they differ from what they should be, or,
How well am I doing my job as a foreman?
3. Why do they differ from what they should be?

PERFORMANCE STANDARDS:

To meet the first of these requirements, "What should things cost," performance standards are established. The term "Performance Standard" may be a bit high sounding, but it is nothing more than a mark at which to shoot. A goal you are determined to attain.

Broadly speaking, we utilize two such standards:—

- 1st. **A Variable Budget of Indirect Expense**—dollar allowances for all business capacity ranges, measured in productive direct labor hours, and,
- 2nd. **A Standard Shop Labor Cost Per "M" Measured Units Produced.** The Unit, as here expressed, means the amount of useful work that a normal man, working at a normal speed, can perform in one minute of time. By a normal speed we mean one which can be maintained over a long period of time without hardship to the individual.

DETERMINATION OF STANDARDS:

Before going into the detail of actual cost reports, it is essential that we devote a brief period to an explanation of what is involved in setting up our standards, so that their utility and necessity may be better appreciated.

The **Variable Budget of Indirect Expense** which is formulated in December for the ensuing year is based on a practical knowledge of these needs:

1. Productive facilities, work stations:—Machine tools, benches, floor area.
2. Indirect labor.
3. Operating supplies.
4. Maintenance, and,
5. Miscellaneous services, such as telephone, telegraph, postage, etc.

A Budget is drafted for each department over the likely range of business capacity and placed in the hands of each foreman by January 1st of the new year.

By acquiring a working knowledge of how much he is permitted to spend in running his department, a foreman is fortified to effect a better control of costs, since he has a definite goal to achieve. He knows how much he may spend for any operating capacity, and can plan his work accordingly.

The **Standard Shop Labor Cost Per "M" Units** is also set up in December for the next year in much the same fashion as the Indirect Expense Budget. A standard is determined for each department, based on the hypothesis that every productive operator in the plant should produce at what we term a 75 Unit Hour. This is the standard operator performance

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rate. It is twenty-five per cent. better than par or normal, which is a 60 Unit Hour.

By **Unit Hour**, we mean the units of work produced in one hour.

For **cost analysis** and **control purposes**, shop labor is considered in four categories:—

- (1st) **Productive**, or that which enters into the manufacture of a saleable product when all conditions are as they should be (i.e., standard conditions).
- (2nd) **Waste**, or that which is a direct loss, or waste, to the company, consisting of time operators spend as idle time, waiting for jobs, material, information from foremen, etc., or in failing to meet standard rates.
- (3rd) **Producer's Non-Productive**, or that which is spent by productive operators in correcting non-standard conditions, such as machining defective metal, getting equipment, or replacing defective work, and other causes.
- (4th) **Contributory**, consisting of all indirect labor necessary to the proper functioning of the department. This includes foremen, time checkers, sweepers, and workers of like nature.

The Shop Labor Cost Standard is established at 100% capacity only. The foreman is expected to plan ahead, to strive to attain the latter goal just as he tries to meet the indirect expense budget.

INCENTIVE CONTROL:

Our shops operate under a "Point Plan of Incentive Control." Plans of this nature determine performance in terms of a common unit of measure, regardless of the various classes of work encountered. Due to the use of such a common denominator, it is possible to make inter-departmental comparisons quite equitably. I would suggest that you may wish to question me in this regard in the question period.

Standard time rates are built up from "**Standard Data**" developed through exhaustive **Time** and **Motion** analyses. Practically all work in process is measured.

The Standards Department, whose function it is to plan process and establish standard time rates in units per piece, is continually active in refining methods and closely observing all cost control procedures throughout the plant.

Under our incentive control, the foremen participate in earning premium, based on the improvement in the cost of operating their departments.

REPORTS:

In order to meet the second and third of our broad requirements, the "How" and "Why," we provide current, right-to-the-point cost reports for weekly consumption by the key men.

At this point I desire to explain that we maintain a close personal contact between the foremen and Budget Supervisor, directly or through

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"standards men," and thus reduce the tendency to regard our reports as "mere routine."

1. The **Indirect Expense Budget Report** is issued weekly, and shows in tabular form the budgeted dollars contrasted with the actual dollars expended to run a department.

Items over-expended are detailed on the back of the sheet for emphasis. They are personally discussed with the foreman by the Budget Supervisor to invoke corrective steps, when necessary, with a minimum of lost motion.

In addition to the weekly figures, this report shows the cumulative status from the beginning of the year.

- * Since careful adherence to his budget and forethought in planning forestalls his being criticized for loose control, the foreman generally makes an honest effort to keep his costs even with the budget.

2. The **Weekly Shop Control Analysis** is a report designed to show how the actual cost per "M" units produced contrasts with the standard cost per "M." The standard cost in dollars per "M" for Productive, Waste, P. N. P., and Contributory Labor, with the total of all four are listed at the top of one section of the sheet and underneath the "deviations from standard" are shown.

Further information on this report is:—

- (a) The capacity in Units Produced,
- (b) The Percent. on Standard,
- (c) The payroll division of labor dollars,
- (d) The percent. of possible savings attained,
- (e) The cost control factor, which is the ratio of the
Actual Total Cost Per "M."
Standard Total Cost Per "M."

This is an important figure from the managerial standpoint, because the departmental cost rating can be seen at a glance.

- (f) Operator and departmental effectiveness, and,
- (g) Supervisory premium earnings in percentage.

- * Successive lines show the shop cost trend by the week, month, and year.

- ** The most important thing this report presents is a clear-cut and current picture of just how much each departmental cost varies from standard. It may be said that this report is a digest of everything entering into the Shop Labor Cost.

3. A **Shop Labor Follow-up Analysis**, or detailed written report, is sent out weekly to each foreman by the Budget Supervisor. It specifically points out weak spots requiring corrective action. This report also puts a finger on operators responsible for excessive failures to meet standard rates, and lists the amount of money they have been instrumental in wasting.
4. A **departmental, graphic chart of operator effectiveness**, in terms of average units produced per hour, is posted weekly in each department. It shows which men were below par performance (60

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units per hour), and which were above, and serves to aid the foreman by inspiring operators to bend every effort to show themselves as better-than-average workers—for reasons of personal pride, and, incidentally, for job salvation. It emphasizes which men are guilty of continuously bad performance, and vice-versa.

5. An **individual operator graphic performance record card** is charted weekly for each direct worker on standard rates. It serves well as a ready means for supervisors to utilize in checking their workers' effectiveness or productivity over a long period of time, and is a very good guide for productive labor control, justifying wage increases, promotions, or elimination of undesirables.
6. The **Producers' Non-Productive Follow-up slip** is a report filled out in triplicate right on the job, for the purpose of focusing the attention of responsible supervisors on non-standard cost items at the time they are being worked. It shows the amount of extra or P. N.-P. time required and the reason. One copy is given to the head of the department at fault, one to the head of the department performing the work, and one is retained in the Standards Department.
7. **Occasionally**, it becomes necessary to present a **specific** bad job analysis to a foreman whose department has been responsible for an excessive cost, so that definite steps may be instituted to improve the condition behind the higher cost. Such a report shows an actual cost in contrast with the standard cost for the job, and usually inspires some definite corrective action.

CONCLUSION:

1. We have found that the **practical presentation** of specific cost information facts without cumbersome and extraneous details is very useful as an aid and guide to foremen in **reducing operating expenses**.
2. **Continual use** of our routine reports, together with **personal contact** between foremen and the "Standards Department" has developed a group of key men who are ever **planning ahead**, instead of waiting for things to happen.
3. By **briefly and pointedly explaining** why actual operating costs have been worse than "standard," we have been able to inspire responsible supervisors to **follow through** and do something about it.
4. The net result of all this is an improving cost-profit ratio.

Cash and Balance Sheet Budgeting

An Address Delivered Before Prospective Members
of Proposed Niagara Peninsula Chapter
December 7th, 1937, by
A. G. HOWEY,
Mercury Mills Ltd., Hamilton, Ont.

Mr. Chairman, Gentleman,—The subject I have chosen to talk about tonight is, of necessity, a very detailed one, and my sincere hope is that it will not be tiresome.

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I know that, if there are any here who are using Budgetary Control correctly, they will agree with me when I say to those of you who are not yet familiar with it, that is is the most useful and, yet, the most fascinating of any phase of accounting.

To begin with, in order to budget your cash position and Balance Sheet on a periodic basis, you must have an Operating Budget. The Sales Budget, which is broken down by the Sales Department into monthly sales by product, and the Expense Budgets of Overhead, Selling, Administrative and Financial, are applied to this Operating Budget (or Profit and Loss Budget) on a periodic basis. This, together with your Production Budget, as it is revealed in the Operating Budget, will give you the necessary details.

Now, at this point, I want to point out to you that budgeting is not a haphazard guess or forecast, as some believe. It is not a thin air theory, but a practical control, which can control to such an extent as to make the actual results approximate the Budget, not the Budget approximate the actual. Of course, a budget of any kind must be flexible, and if any major change takes place in, say, volume of sales, due to new markets, etc., or radical changes in material costs, labor costs or expenses, a new budget should be made.

Starting with the actual Balance Sheet at the fiscal year end, or estimating it, if you prefer to have your budget prepared well in advance, the Cash Budget and Balance Sheet Budget should be drawn up at the same time as, in many cases, the same set of working figures on the detailed schedules will give you the required figures for both budgets.

CASH BUDGET

Receipts—

- Collections,
- Miscellaneous,
- Total.

Disbursements—

- Materials and Supplies,
- Direct Labor,
- Factory Expense, including Indirect Labor,
- Selling Expense,
- Administrative Expense,
- Bank Interest and Charges,
- Sundry Financial,
- Bond Interest,
- Sales Tax,
- Capital Expense,
- Miscellaneous,
- Total.

BALANCE SHEET

Assets: Current—

- Cash,
- Net Receivables after

CASH AND BALANCE SHEET BUDGETING

Bad Debt Reserve of
Inventories—Raw,
Processed and Finished,
Total,
Less Reserve,
Net Inventories;
Sundry Prepaid,
Total.
Liabilities: Current—
Bank Loan,
Accounts Payable,
Accrued Wages and Salaries,
Accrued Sales Tax,
Sundry Accrued,
Total.
Liquid Surplus (Working Capital),
Fixed Assets Net after—
Depreciation Reserve,
Deferred,
Total.
Less Fixed Liabilities (Mortgage or Bond Issue)
Fixed Surplus,
Total Surplus.

The first item to calculate is your Accounts Receivables, as follows— Budgeted first period Sales, plus calculated Sales Tax, to give the Gross Sales; add to the Closing Balance of Receivables, deduct estimated Collections, based on previous experience (give detail), also deduct estimated Bad Debts, to give you Closing Balance of Receivables for the period. The estimated Collection figure, less estimated Sales Discounts from the Selling Expense Budget, gives you the Net Collections. At this time, take the Opening Balance of Bad Debt Reserve, add to it your estimated Reserve for the period and deduct your estimated Bad Debts, to give you the closing figure. Thus, from the above we get Net Collections, Gross and Net Receivables, Bad Debt Reserve, Accrued Sales Tax and Sales Tax Disbursements.

The next item is Inventories. Grouping the Process and Finished together serves the Budget purpose and saves time (they can be broken down afterward in detail). Adding or subtracting to the Opening Balance the estimated change in Inventories, according to the Production estimate, gives your closing figure of Processed and Finished Inventories.

Raw Material Opening Balance, less the Production estimate of Materials Used, subtracted from your estimate of what the Raw Material Inventory closing should be, gives the amount of Raw Material Purchases. The Closing Balance of Inventories, less Reserve, gives Net Inventories. If a periodic reserve is set up, of course the accumulated reserve must be deducted each period (give detail of charting inventories).

The next item is Accounts Payables. To the Closing Balance of Payables is added the Purchases of Raw Materials and Supplies, also any in-

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voices covering taxes or Workmen's Compensation, etc., which may be carried for some time in Payables before payment. From this total is deducted the Cash Payments (detail) plus the payments of Tax Invoices, etc., giving the Closing Payable Balance. If salesmen are paid on a Drawing Account basis (with commissions applied against the Drawing Account, a separate schedule should be made, showing the periodic overdraft, which must be deducted from Closing Payable Balance to give the true Balance of Payables. From the Material Payments is deducted Cash Discounts, giving the Net Cash Payments for Materials and Supplies.

Continuing with the Balance Sheet, we have Accrued Wages and Salaries. To the Closing Balance is added the periodic amount of Direct Wages as estimated on the Production Budget as required to manufacture the estimated production for the period. The estimated Indirect Labor, Shipping Labor, Clerical Salaries and Executive Salaries from the periodic expenses on the Operating Budget are added also. Deduct from this total the amounts to be paid periodically, leaving the Accrued Balance. Of course, each one of these items is set up on a periodic schedule of its own, and from the detailed schedule of Direct Labor we get the Direct Labor cash payments (detail).

Sundry Accrued, composed of Taxes, Water Rates, Hydro and Bond Interest and Dividends, is set up under separate schedules, taking the Closing Balance, adding the period charge from the Operating Budget and deducting the invoice for same, or payment, in case of Bond Interest and Dividends to arrive at the Accrued Balance.

The Closing Balance of Net Fixed Assets, plus estimated purchases of new equipment, less periodic Depreciation Reserve, gives the Net Periodic Fixed Assets. To the Closing Balance of Depreciation Reserve is added the periodic depreciation set-up to give the periodic accumulative Depreciation Reserve.

From the Closing Deferred Asset Balance is deducted the periodic charges to operations, giving the Closing Periodic Balance for the Balance Sheet Budget.

The Fixed Liabilities are now calculated. If any payments are to be made on the Bond Issue or Mortgage, these must be deducted in the period in which they will be paid, giving the correct balance in that period for the Balance Sheet Budget.

Deducting the Fixed Liabilities from the Total Fixed Assets gives the Fixed Surplus. The Fixed Surplus is the Capital Stock, plus the Surplus Account.

Now, working backward, take the Closing Total Surplus amount and add to it the periodic Profit, or deduct the Period Loss, as shown on the Operating Budget, also deduct any Dividends paid or Stock Redemption, to give the periodic closing of Total Surplus. From Total Surplus deduct Fixed Surplus, which gives us our Liquid Surplus, or Working Capital.

Up to this point, we have established everything on the Balance Sheet, except our Cash or Bank Loan, as the case may be, and the Sundry Pre-paid Items, so let us now complete the Cash Budget.

The next item is Factory Overhead. From the periodic Budgeted total, we deduct the periodic charges for Indirect Labor, Administrative

CASH AND BALANCE SHEET BUDGETING

Salaries, Clerical Salaries, Compensation Insurance, Taxes, Water Rates and Hydro charges, and add them back in the period in which they will be paid. This is obtained from the separate schedules set up on each item. This, then, gives us the Factory Overhead Periodic Cash Payments.

Selling Expense Payments are handled in the same manner, except that deductions are made for Bad Debts and Sales Discounts from the periodic budgeted totals, but are not added back, as no cash is paid for these items—they already having been deducted from the Receivables and Collections respectively.

Administrative Expense payments are calculated exactly as Factory Expense. Care should be taken here that Deferred Charges are eliminated from Expense payments, if they are included in the Expense Budgets.

Bank Interest and charges are obtained from the Financial Expense Budget, and are set up in the period in which they will be paid.

Sundry Financial Payments are the balance of the Financial Expense Budget and are treated exactly as above.

Bond Interest Payments are taken from the separate schedule, prepared for the Sundry Accrued Bond Interest.

Capital Expense Payments are taken from the schedule of Fixed Assets and payments are posted to the periods in which they will become due.

Miscellaneous: This last item covers Directors' Fees, if any, Stock Redemption, Dividends or Bond Sinking Fund payments, as, and when, they fall due.

This completes our Cash Budget. Now we deduct the Cash Disbursements from the Cash Receipts and add, or subtract, as the case may be, to the Closing Cash or Bank Loan Balance, and we arrive at our Closing Periodic Cash Balance.

This now enables us to check our Balance Sheet, by adding the Total Liabilities to the Liquid Surplus, to obtain our Total Current Assets. Using the Sundry Prepaid as a balancing item, if this is the usual small item generally found in most manufacturing plants, the Total Current Assets should agree with our predetermined figure, that is, if we have done our work mathematically correct. I might add, that, if this prepaid item is of large proportion, a separate schedule should be drawn, showing the periodic balance after distribution.

From these working figures, you can now budget the detailed Process, Finished and Raw Inventory and Purchase Budgets.

You are now prepared to turn over to your Management a control to cover all phases of your business, and when the actual performance is compared to the Budget, the necessary steps may be taken to correct any out-of-line performances.

Do not be discouraged if your first Balance Sheet Budget is not as close as it should be, as it takes a few years to obtain the necessary background to estimate with sound formulas instead of just guessing.

While some of you may still feel the word "estimate" is predominant in this talk, I can assure you that the Cash and Balance Sheet Budget is just a mathematical problem with a flavoring of common sense, combined with the necessary study of the past history and future problems of any company.

CORRESPONDENCE

Now, as to the advantages of Cash and Balance Sheet budgeting—

1. Necessary if you are operating under Section 88 of the Bank Act.
2. Control of Purchasing.
3. Control of Inventories.
4. Enables the proper planning of Cash Expenditures.
5. Control of Working Capital.
6. Check on Receivable Liquidation.
7. Loan Coverage, if Bank Loan is necessary.

I hope I have made this sound intelligent to you, and I will answer any questions to the best of my ability. For that matter, if you care to ask any questions regarding the preparation of the Sales or Operating Budget, which precedes the Cash and Balance Sheet Budget so that the whole may be made a little clearer, I shall be only too glad to give you all the information I can.

Correspondence

To The Editor,

Dear Sir,—

I read with interest in the November issue your article on Uniform Accounting Methods, and agree entirely that there is a wide field along these lines. I agree, also, that the Canadian Society of Cost Accountants and Industrial Engineers is in a fine position to start something along these lines. Would it be possible to say, get all members engaged in any one particular industry in a given Chapter together, quite apart from a Chapter meeting, and to explore the possibility of some such action in that industry? That at least would be a start. Another method would be for the Dominion Society to appoint a committee to study this question with a view to action in the near future.

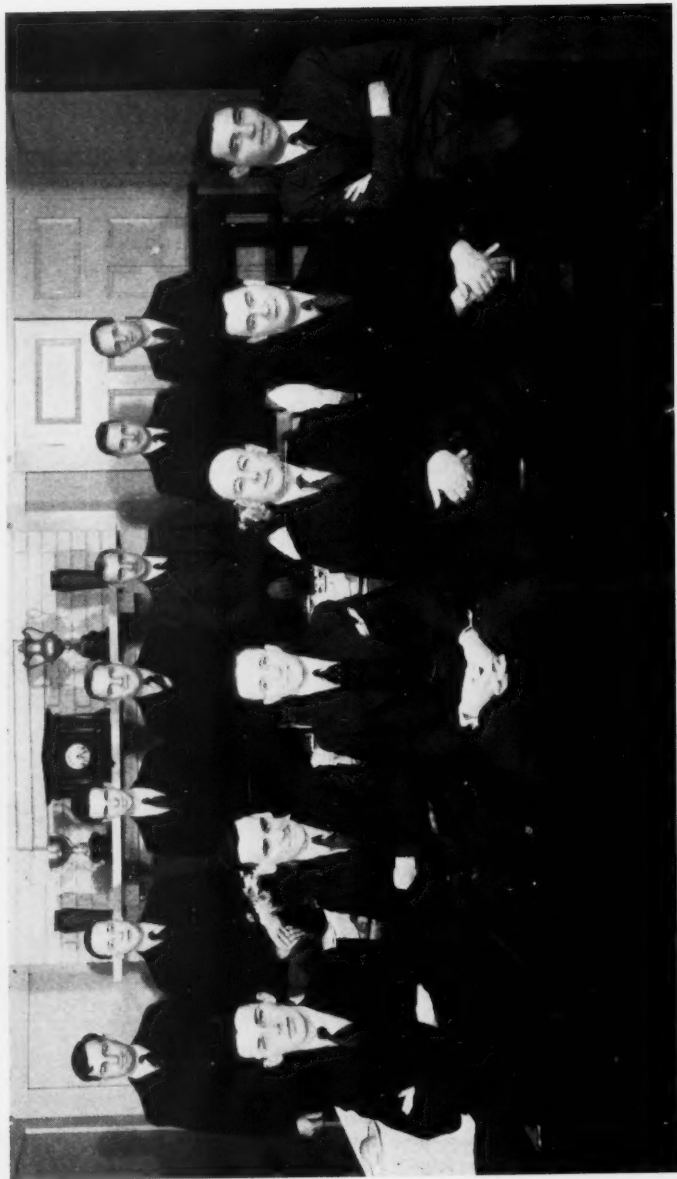
Yours Truly,

—"ONTARIO."

Both the methods suggested could be adopted and would, no doubt, be of considerable value. It is, however, preferred that we receive other letters on this subject before taking any action.—Ed.

EMPLOYMENT

We do not know if any of our members are unemployed at the present time, but we do know that some must desire a change of position. While positions, especially sound positions, are seldom vacant in these days, nevertheless there are occasions when we are approached with a view to assisting in finding men with experience in accounting and cost accounting. Unless members desiring employment or a change in position notify us of this desire we are unable to assist them, and we would suggest that any member either out of employment or desiring a change in position, should notify the Secretary-Manager of the Society immediately. A form to be filled in will then be sent to him and should be returned immediately. Such applications will then be listed carefully at head office and names suggested to employers on the basis of experience and merit when we are notified of a vacant position. Similarly, employers are asked to communicate with head office when they have a vacancy to fill.



BOARD OF DIRECTORS, TORONTO CHAPTER

Front row, left to right—D. W. Ewles, Copeland-Chatterton Ltd.; H. E. Bunt, Lever Bros. Ltd.; R. S. Kellow, Hinde & Dauche Paper Co. of Canada Ltd.; W. F. Putt, Steel Co. of Canada Ltd.; H. M. Hetherington, Vicroy Mfg. Co. Ltd.; and D. T. Christie, Business Systems Ltd.
 Back row—R. H. Metcalfe, Massey-Harris Co. Ltd.; H. S. Pratt, Consolidated Bakeries of Canada Ltd.; J. F. Roberts, J. P. Langley & Co. (Sec.-Treas.); G. Appleton (Chairman), Toronto Hydro Electric System; R. F. Bruce-Taylor, C.A. (Vice-Chairman), Edwards, Morgan & Co.; R. S. M. Austin, Gurney Foundry Co. Ltd.; and R. J. Williams, Can. Wm. A. Rogers Ltd.
 W. T. Brickenden, B.A., Sec., M.E., Thorne, Mulholland, Holson & McPherson, and C. D. Landell, Canada Dry Ginger Ale Co. Ltd. Other members of the board are not included in the above photograph.

